

REMARKS

Claims 34 and 38 have been amended. Claims 29-38 are pending in the present application.

Claims 29-31 and 34-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,689,875 (Solstad) in view of U.S. Patent No. 4,132,856 (Hutchison et al.). Applicant respectfully traverses this rejection.

The claimed invention relates to a method of fabricating an electrical contact device. As such, claim 29 recites a "method of making an electrical contact device" by *inter alia* "forming a plurality of spaced apart electrical leads held in position relative to each other by at least two conductive connecting strips, said at least two conductive connecting strips extending between adjacent leads and arranged along opposite sides of a plurality of slots formed between said at least two conductive connecting strips, said plurality of spaced apart electrical leads extending outward from said at least two conductive connecting strips." Claim 29 further recites "forming insulating material over said plurality of slots and between said connecting strip" and "subsequently removing portions of at least two conductive connecting strips located between adjacent leads to electrically isolate said adjacent leads."

Solstad relates to a method for assembling and packaging an integrated circuit on a carrier tape. According to Solstad, the carrier tape comprises "at least two layers . . . includ[ing] small flat leads in the conductive layer." (Abstract). Solstad also teaches that a "carrier bridge or frame of nonconductive material is bonded to one surface of the leads and is connected to a nonconductive layer (or part of) the tape." (Abstract). Solstad further teaches that the "electrical pads of an integrated circuit are bonded to the respective ends of the tape simultaneously." (Abstract). Solstad also teaches that a "planar base is adhered to the surface of the chip having the electrical

pads" and "leads are bent over the base to secure the base on the tape and provide electrical contact points to the chip." (Abstract). Solstad then teaches that the "chip is coated with a suitable material to provide insulation and encapsulation." (Abstract).

Hutchison et al. relates to a process of packaging an electronic integrated circuit which comprises "a film carrier having metallized connector leads formed thereon to provide the connector leads for the integrated circuit." (Abstract).

Hutchison et al. discloses that "the film carrier 12, per se, is an industry standard size 35 mm film . . . with consecutive frames or patterns of conductor leads 14 which fan inwardly from the outer rectangular lead frame 44." (Col. 5, lines 17-22; Fig. 2).

Hutchison et al. also discloses "gang-bonding the die to said leads; . . . placing a metal heat sink having a raised die attach area and a pair of pedestals coextensive with said film carrier into a transfer mold with the leads remaining planar; epoxy bonding said die to said die attach area concurrently soldering selected leads to said pedestals; and completely encapsulating said die in plastic." (Abstract).

Solstad and Hutchison et al., whether taken alone or in combination, do not teach or suggest all the limitations of the claimed invention. Contrary to the Office Action's assertion at 2, *the connecting strips 14a and 14b of Solstad comprise a nonconductive material*, and not conductive connecting strips. As shown in Fig. 1, Solstad's electrical leads 16A-16H *do not form slots* between the non-conductive strips 14A and 14B, and are formed *inward from the opening* in the metal layer 10A. Therefore, Solstad does not form "a plurality of slots formed between said at least two conductive connecting strips," much less "forming insulating material over said plurality of slots," or having "said plurality of spaced apart electrical leads extending *outward* from said at least two conductive connecting strips," as recited in claim 29 (emphasis added).

Hutchison et al. cannot supplement the inadequacies of Solstad in this

regard. According to Hutchison et al., "the film carrier 12, per se, is an industry standard size 35 mm film . . . with consecutive frames or patterns of conductor leads 14 which fan inwardly from the outer rectangular leadframe 44." Hence, Hutchison et al., like Solstad, discloses a frame, or connecting strips, consisting of a non-conductive material and forms leads that extend inward from the connecting strips, and not "at least two conductive connecting strips extending between adjacent leads and arranged along opposite sides of a plurality of slots formed between said at least two conductive connecting strips, said plurality of spaced apart electrical leads extending outward from said at least two conductive connecting strips," as recited in claim 29. Since neither Solstad nor Hutchison et al. teach or suggest all the limitations of claim 29, claim 29 and dependent claims 30 and 31 are patentable over the references.

Claim 34 recites limitations similar to claim 29. Claim 34 recites a method of making an electrical contact device comprising, *inter alia*, "forming at least two lead structures, each of said lead structures comprising a plurality of spaced apart electrical leads." Claim 34 also recites "said at least two lead structures being connected to one another by an outer frame" and "forming insulating material along and between a longitudinal length of . . . each of said at least two connecting strips of each of said lead structures." Claim 34 further recites "subsequently removing portions of each of said at least two connecting strips located between adjacent leads for each of said lead structures."

As mentioned above, claim 34 contains similar limitations as claim 29, and simultaneously forms at least two of the lead structures recited in claim 29. Therefore, for at least the same reasons as stated above regarding the patentability of claim 29 as being not obvious over the cited references, Solstad and Hutchison et al. would not have rendered the subject matter of claim 34 obvious. Claims 35-38 depend from claim

34 and are likewise patentable thereover. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 29-31 and 34-38 be withdrawn.

Claims 32 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Solstad in view of Hutchison et al., and further in view of U.S. Patent No. 4,918,513 (Kurose et al.). Applicant respectfully traverses this rejection.

Claims 32 and 33 depend from claim 29 and contain all the limitations within it. For at least the same reasons as set forth above regarding the patentability of claim 29 over Solstad and Hutchison et al., these references would not have rendered the subject matter of claims 32 and 33 obvious. Kurose et al. cannot supplement the inadequacies of Solstad and Hutchison et al. in this regard.

Kurose et al. relates to an IC chip socket for receiving an IC bare chip carrier including a guide member for guiding the periphery of the IC chip carrier. Kurose et al. recites that the "guide member supports a plurality of connector pins having one end projecting within the guide member and another end projecting without the guide member." (Abstract). Kurose et al. provides "a guide member 8 which is formed in the same of a frame with an opening 8c . . . for guiding and receiving chip carrier substrate 1" and supporting connector pins 9 formed as terminals projecting within and without guide member 8. (Col. 3, lines 15-21; Fig. 3). Kurose et al. is entirely silent on the method of making this guide member and makes no mention of any conductive connecting strip between the connector pins, much less "forming a plurality of spaced apart electrical leads held in position relative to each other by at least two conductive connecting strips, said at least two conductive connecting strips extending between adjacent leads and arranged along opposite sides of a plurality of slots formed between said at least two conductive connecting strips," as recited in claim 29.

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Since none of Solstad, Hutchison et al., and Kurose et al., whether taken alone or in combination, teach or suggest all of the limitations of claim 29, dependent claims 32 and 33 are patentable over these references. Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 32 and 33 be withdrawn.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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